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10/725,859	12/01/2003	Philip Borghesani	MWS-093	2817

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LAHIVE & COCKFIELD, LLP	EXAMINER
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SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/02/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

PTOL-90A (Rev. 10/06)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>01 December 2003</u>.
2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-35</u> is/are pending in the application.
    4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) <u>1-35</u> is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a)☐ All   b)☐ Some * c)☐ None of:
      1.☐ Certified copies of the priority documents have been received.
      2.☐ Certified copies of the priority documents have been received in Application No. _____.
      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.
4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.
5)☐ Notice of Informal Patent Application
6)☐ Other: _____.

DETAILED ACTION

1.   This communication is responsive to the application filed 12/01/2003.

Claims 1-35 are presented for examination.

Oath/Declaration

2.   The Office acknowledges receipt of a properly signed Oath/Declaration received

12/01/2003.

Specification

3.   Examiner requests that Applicant review the application carefully for informalities

including typographical errors.

Claim Objections

4.   Claims 6, 18, 23, and 32 are objected to because of the following informalities: the

abbreviations used in these claims should be defined.

Claim Rejections - 35 USC § 101

5.   35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-21 and 27-35 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The current focus of the Patent Office in regard to statutory inventions under 35 U.S.C. § 101 for method claims and claims that recite a judicial exception (software) is that the claimed invention recite a practical application. Practical application can be provided by a physical transformation or a useful, concrete and tangible result. No physical transformation is recited and additionally, the final result of the claims is not a tangible result.

Claims 22-26 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The claims recite a device in the preamble only, the body of the claims merely contains software components. Therefore, the claims are software per se and are not embodied in a computer storage medium and therefore not a "device".

Claims which are broad enough to read on statutory subject matter or on non-statutory subject matter are considered non-statutory. Cf. In re Lintner, 458 F.2d 1013, 1015, 173

USPQ 560, 562 (CCPA 1972) ("Claims which are broad enough to read on obvious

subject matter are unpatentable even though they also read on nonobvious subject

matter.") During prosecution, applicant can amend to limit the claims to statutory subject

matter.

The following link on the World Wide Web is for the United States Patent And

Trademark Office (USPTO) policy on 35 U.S.C. §101.

<http://www.uspto.gov/web/offices/pac/dapp/opla/preognotice/guidelines101_20051026.

pdf>

Double Patenting

6.   The nonstatutory double patenting; rejection is based on a judicially created doctrine

grounded in public policy (a policy reflected in the statute) so as to prevent the

unjustified or improper timewise extension of the "right to exclude" granted by a patent

and to prevent possible harassment by multiple assignees. See In re Goodman, 11 F.3d

1046, 29 USPQ2d 2010 (Fed. CIT. 1993); In re Longi, 759 F.2d 887, 225 USPQ 645

(Fed. Cir. 1985); In re van Ornum, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); In re

Uogel, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and In re Thorington, 418 F.2d 528,

163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 C.F.R.' 1.321(b) would

overcome an actual or provisional rejection on this ground provided the conflicting

application or patent is shown to be commonly owned with this application. See 37

C.F.R.' 1.78(d).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal

disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR

3.73(b).

Claims 1-35 are rejected on the ground of nonstatutory obviousness-type double

patenting as being unpatentable over claims 1-51 of U.S. Pat. No. 7,165,253.

Although the conflicting claims are not identical, they are not patentably distinct from

each other because the claims of the instant application and the claims of patent'253 are

claiming the same method for creating an interface based on the gathered information.

The differences between the claims of the instant application and the claims of

patent'253 would have been obvious to a person of ordinary skill in the art at the time the

invention was made, since the claims of the instant application represent the invention in

broader scope.

Claim Rejections - 35 USC § 102

7.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-5, 7-17, 19-22, 24-31, and 33-35 are rejected under 35 U.S.C. 102(e) as being

anticipated by **Richardson et al.** (U.S. 6,874,148).

As to claim 1:

Richardson discloses in an electronic device, a method *(system and method)* of accessing

a library function *(enabling a program to call into graphical program code)* in a shared

library *(shared library)* from a dynamic environment *(a Windows Dynamic Link Library)*

[see the Abstract and col.3, line 66-col.4, line53], comprising the steps of:

processing a header file of the library function to extract information for creating

an interface to the library function; and creating the interface to the library

function in the shared library *(When creating a shared library from a graphical*

program, a functional interface specifying parameterized versions of these inputs

and outputs may be specified, either automatically or interactively. A program

may then utilize this functional interface to construct an appropriate call into the

shared library. For example, for a graphical program with an integer input and

an integer output, a C-style functional interface may be specified...if a graphical

program is called through a shared library, the input values may be specified by

parameters that the calling program passes to the shared library entry point

function for the graphical program. Similarly, the output values for the graphical

program may be written to output parameters that are passed by the calling

program. In step 202, the user may define a functional interface specifying the

desired mapping of the graphical program inputs/outputs to entry point function

parameters.....the graphical programming system may automatically create the

functional interface based on the inputs and outputs of the graphical program.

The functional interface may be constructed or formatted in any way appropriate

for a particular type of shared library. For example, for a DLL, a C-style

functional interface may be specified) [see col.4, lines 3, lines 15-44 and col.9,

lines 6-28; see also, Fig.6 and the discussion beginning at col.10, line 60].

As to claim 2:

Richardson discloses automatically defining parameters for the interface to the library

function based on the header file (*see the functional interface and parameters discussion,*

beginning at col.6, line 60)

As to claim 3:

Richardson discloses creating at least one data structure having selected parameters for interfacing with the library function (*see the functional interface and parameters discussion, beginning at col.6, line 60)*

As to claim 4:

Richardson discloses automatically ensuring inputs to the interface to the library function are in the form of selected data types based on the header file *(Graphical programs or subprograms may have associated inputs or outputs of various data types. When creating a shared library, a functional interface specifying parameterized versions of these inputs and outputs may be specified/ Graphical programs or subprograms may have associated inputs or outputs of various data types. When creating a shared library from a graphical program, a functional interface specifying parameterized versions of these inputs and outputs may be specified, either automatically or interactively. A program may then utilize this functional interface to construct an appropriate call into the shared library)* [see the Abstract and col.4, lines 15-24].

As to claim 5:

Richardson discloses the interface converting data types to the selected data types for the library function *(any of various other types of data type transformations may be performed... a graphical programming system is operable to generate entry point*

functions that map ActiveX data types to or from data types native to the graphical

programming system. For example, an ActiveX variant data type may be converted to a

variant data type proprietary to the graphical programming system. As another example,

the use of array data types may involve data type transformation. Similarly as in the

string example above, arrays may be passed from external programs using different

representations, e.g., as a handle to the array or as a pointer to the array data. As

another example, the entry point function may convert between numeric data types, e.g.,

converting a floating point parameter to an integer data type) [see col.12, line 50-col.13,

line 12].

As to claim 7:

Richardson discloses a C header file *(a text-based C program) [see col.4, lines 4-44 and*

col.9, lines 23-26].

As to claim 8:

Richardson discloses saving the interface to the library function in the shared library in

the dynamic environment in an executable form for subsequent use *[see col.4, lines 4-44*

and Figs. 6 and 7 and the associated text].

As to claim 9:

Richardson discloses receiving a command to call the library function *(enabling a*

program to call into graphical program code via a shared library) [see the Abstract].

As to claim 10:

Richardson discloses executing the library function using the interface from the shared library *(then utilize this functional interface to construct an appropriate call into the shared library) [see col.4, lines 4-44 and Figs. 6 and 7 and the associated text]*.

As to claim 11:

Richardson discloses at least one of a text-based modeling application *(a text-based program)* and a graphical-based modeling application *(graphical program) [see the Abstract and col.4, lines 4-44]*.

As to claim 12:

The rejection of claim 1 above is incorporated herein in full. Additionally, Richardson teaches loading the library function from the shared library *(a text-based C program running on the Windows environment may load and use the DLL/the shared library includes an initialization routine that the operating system is enabled to call when the shared library is loaded. This initialization routine may locate the graphical program code in the shared library, using the length information described above with reference to FIG. 8. The initialization routine may also interface with the runtime execution system to prepare for running the graphical program(s) included in the shared library, e.g., by pre-loading the graphical program(s). Thus, when a runtime call into the shared library is received, the referenced graphical program may be loaded and ready to run) [col.4,*

lines 11-14 and col.15, lines 6-16] and executing the library function using the interface

from the shared library *(then utilize this functional interface to construct an appropriate*

call into the shared library) [see col.4, lines 4-44 and Figs. 6 and 7 and the associated

text].

As to claim 13:

Note the discussion of claim 1 for rejection.

As to claims 14-17:

Note the discussions of claims 2-5, respectively, for rejections.

As to claims 19-21:

Note the discussions of claims 7, 8, and 11, respectively, for rejections.

As to claim 22:

The rejection of claim 1 above is incorporated herein in full. Additionally, Richardson

teaches an application providing a dynamic environment *(a program to call into*

graphical program code via a shared library ... a Windows Dynamic Link Library (DLL),

Unix Shared Library, etc. A program, e.g. a text-based program, may then use the shared

library to call into the graphical program. Graphical programs or subprograms may

have associated inputs or outputs of various data types. ...A program may then utilize this

functional interface to construct an appropriate call into the shared library) [see the

Abstract].

As to claims 24-26:

Note the discussions of claims 7, 8, and 11, respectively, for rejections.

As to claims 27-31 and 33-35:

Note the discussions of claims 1-5, 7, 8, and 11, respectively, for rejections.

Claim Rejections - 35 USC § 103

8.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
such that the subject matter as a whole would have been obvious at the time the invention was made to a person
having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the
examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions
covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37
CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later
invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35
U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 6, 18, 23, and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Richardson et al. in view of **Engelschall** "Apache 1.3 Dynamic Shared Object (DSO)

Support", pp.1-8.

As to claims 6, 18, 23, and 32:

Richardson discloses a DLL file *(a DLL) [see col.4, lines 4-44 and col.9, lines 23-26]*.

Richardson, however, does not specifically teach a .so file.

Engelschall teaches .so file *(libc.so) [page 2]*.

It would have been obvious to a person of ordinary skill in the art at the time the

invention was made to modify Richardson with Engelschall because Engelschall'

teaching would have allowed a graphical program to be exported to a shared library,

thereby enabling any program able to access the shared library to be able to access the

graphical program through the shared library.

Conclusion

9.   The prior art made of record, see PTO 892, and not relied upon is considered pertinent to

applicant's disclosure. Applicant should review these references carefully before

responding to this office action.

Contact Information

10.   Any inquiry or a general nature or relating to the status of this application should
be directed to the TC 2100 Group receptionist: (571) 272-2100.

Any inquiry concerning this communication or earlier communications from the
examiner should be directed to VAN H. NGUYEN whose telephone number is (571)
·272-3765. The examiner can normally be reached on Monday-Thursday from 7:30AM
5:00PM. The examiner can also be reached on alternative Friday. If attempts to reach the
examiner by telephone are unsuccessful, the examiner's supervisor, WILLIAM ·
THOMSON can be reached at (571) 272-3718.

The fax phone number for the organization where this application or
proceeding is assigned is (571) 273-8300.

· Information regarding the status of an application may be obtained from the
Patent Application Information Retrieval (PAIR) system. Status information for
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For more information about the PAIR system, see http://pair-direct.uspto.gov. Should
you have questions on access to the Private PAIR system, contact the Electronic Business
Center (EBC) at 866-217-9197 (toll-free).

Any response to this action should be mailed to:
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Van H. Nguyen
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